

Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-14 (cancelled).

Claim 15 (currently amended): A road antenna apparatus comprising:

- a road antenna disposed above a road and establishing radio communication with an on-vehicle device mounted in a vehicle, via a transmission wave;
- a Doppler signal processor which detects the traveling direction of the vehicle on the basis of a change arising in the frequency of a reflected wave due to the Doppler effect, the reflected wave being formed when the transmission wave emitted from the road antenna is reflected by the vehicle; and
- control means which inhibits ~~restricts~~ establishment of communication with the vehicle traveling in a predetermined direction.

Claim 16 (original): The road antenna apparatus as described in claim 15, further comprising: reflected wave extraction means which receives the reflected wave and a receipt wave emitted from the on-vehicle device, the reflected wave extraction means extracts only the reflected wave.

Claims 17-26 (cancelled).

Claim 27 (previously presented): A road antenna apparatus comprising:

a road antenna disposed above a road and establishing radio communication, via a transmission wave, with an on-vehicle device mounted in a vehicle;

reflected wave extraction means which receives the reflected wave and a receipt wave emitted from the on-vehicle device and extracts the reflected wave;

a Doppler signal processor which detects the traveling direction of the vehicle on the basis of a change arising in the frequency of the reflected wave due to the Doppler effect, the reflected wave being formed when the transmission wave emitted from the road antenna is reflected by the vehicle;

control means which allows establishment of communication with the vehicle when the detected direction of the vehicle is a predetermined direction.

Claim 28. (currently amended) The apparatus of claim 27, wherein the control means inhibits ~~restricts~~ the establishment of communication with the vehicle traveling in a first direction when the detected direction of the vehicle is a second direction opposed to the first direction.